

RRRRRRRR	PPPPPPPP	GGGGGGGG	DDDDDDDD	EEEEEEEEE	FFFFFFFFF
RRRRRRRR	PPPPPPPP	GGGGGGGG	DDDDDDDD	EEEEEEEEE	FFFFFFFFF
RR RR	PP PP	GG	DD	EE	FF
RR RR	PP PP	GG	DD	EE	FF
RR RR	PP PP	GG	DD	EE	FF
RR RR	PP PP	GG	DD	EE	FF
RRRRRRRR	PPPPPPPP	GG	DD	EEEEEEEEE	FFFFFFFFF
RRRRRRRR	PPPPPPPP	GG	DD	EEEEEEEEE	FFFFFFFFF
RR RR	PP	GG	GGGGGG	DD	FF
RR RR	PP	GG	GGGGGG	DD	FF
RR RR	PP	GG	GG	DD	FF
RR RR	PP	GG	GG	DD	FF
RR RR	PP	GG	GG	DD	FF
RR RR	PP	GG	GGGGGG	DDDDDDDD	EEEEEEEEE
RR RR	PP	GGGGGG	DDDDDDDD	EEEEEEEEE	FF
RR RR	PP	GGGGGG	DDDDDDDD	EEEEEEEEE	FF

RRRRRRRR	EEEEEEEEE	QQQQQQ
RRRRRRRR	EEEEEEEEE	QQQQQQ
RR RR	EE	QQ
RRRRRRRR	EEEEEEEEE	QQ
RRRRRRRR	EEEEEEEEE	QQ
RR RR	EE	QQ
RR RR	EEEEEEEEE	QQQQ QQ
RR RR	EEEEEEEEE	QQQQ QQ

File: RPGDEF.REQ, Edit:LPT1015

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FACILITY: VAX RPG II

ABSTRACT:

This is a common definition file for VAX RPG II. All definitions
of data structures that must be known by the compiler and the
generated code and RTL support should be included here.
This file should be required in COMLIB.REQ.

ENVIRONMENT: VAX/VMS user mode

AUTHOR: D. Braffitt, CREATION DATE: 12-Nov-1982

MODIFIED BY:

1-001	Original	DJB 12-Nov-1983
1-002	Add RPG\$L_CTX_ERROR	LPT 14-Feb-1983
1-003	Add program control block macros	LPT 18-Mar-1983
1-004	Add RPG\$K_ERR_SUBSC	LPT 24-Mar-1983
1-005	Add support for record control/sequence check blocks; add RPG\$IOEXCEPTION error location constants; add current CTX area ID	DJB 11-Apr-1983
1-006	RPG\$S_CTX_PRINTER should be 32.	DJB 12-Apr-1983
1-007	Add RPG\$V_CTX_RNF.	DJB 14-Apr-1983
1-008	Change RPG\$A_RCB_EXTFL to RPG\$A_RCB_EXTFLD	LPT 25-Apr-1983
1-009	Add RPG\$V_RCB_MATCH	LPT 10-Jun-1983
1-010	Fix offset of some RCB fields	LPT 10-Jun-1983

1-011	Add RPGSV_RCB_CNTRLF	LPT 22-Jun-1983
1-012	Add RPGSV_CTX_OVPEND	LPT 5-Jul-1983
1-013	Correct PRINTER context area offsets	DJB 05-Jul-1983
1-014	Add RPGSB_SCB_FLAGS	DJB 20-Jul-1983
1-015	Delete RPGSA_CTX_MATCHAREA	LPT 21-Nov-1983

Definitions for the RPG II file context area.
This area is allocated in PSECT \$LOCAL by the compiler
for each file immediately preceding the RAB. The actual size allocated
depends on the file type.

MACRO

RPGSW_CTX_FLAGS=	-4,0,16,0 %,	Flag bits
RPGSV_CTX_UOFF=	-4,0,1,0 %,	TRUE only if file is conditioned by an external indicator which is off
RPGSV_CTX_EOF=	-4,1,1,0 %,	TRUE only if file is at end of file
RPGSV_CTX_LOOKAH=	-4,2,1,0 %,	TRUE only if file is an input file which contains look-ahead fields
RPGSV_CTX_RNF=	-4,3,1,0 %,	TRUE only if last attempt to read from file resulted in record not found
RPGSB_CTX_ID=	-1,0,8,0 %,	Version number
RPGSL_CTX_ERROR=	-8,0,32,0 %,	Error number for RPG detected errors
RPGSA_CTX_SLB=	-12,0,32,0 %,	Address of current entry in the sequence control block
RPGSA_CTX_READ=	-16,0,32,0 %,	Address of the READ routine
RPGSA_CTX_CRCB=	-20,0,32,0 %,	Address of the current record control block
RPGSA_CTX_OVIND=	-12,0,32,0 %,	Address of the overflow indicator for this PRINTER file
RPGSW_CTX_FL=	-14,0,16,0 %,	# of lines on logical page (1-112)
RPGSW_CTX_OL=	-16,0,16,0 %,	Overflow line # (1-112)
RPGSW_CTX_LINE=	-18,0,16,0 %,	Current line on printed page
RPGSW_CTX_PFLAGS=	-20,0,16,0 %,	Flags for print control
RPGSV_CTX_FIRST=	-20,0,1,0 %,	TRUE only before first write to file
RPGSV_CTX_IPFORMS=	-20,1,1,0 %,	TRUE only if first page forms positioning has been requested
RPGSV_CTX_OVLINE=	-20,2,1,0 %,	TRUE if this is an overflow line
RPGSV_CTX_OVPEND=	-20,3,1,0 %,	TRUE if overflow is pending
RPGSW_CTX_SKIPB=	-22,0,16,0 %,	# of lines to space before printing (0-3)
RPGSW_CTX_SKIPA=	-24,0,16,0 %,	# of lines to space after printing (0-3)
RPGSW_CTX_SPACEB=	-26,0,16,0 %,	Line number to skip to before printing (1-112)
RPGSW_CTX_SPACEA=	-28,0,16,0 %;	Line number to skip after printing (1-112)

LITERAL

RPGSK_CTX_ID=	1,	Current CTX area id
RPGSS_CTX_OUTPUT=	8,	Size of context area for output files
RPGSS_CTX_PRINTER=	28,	Size of context area for printer files
RPGSS_CTX_INPUPD=	20;	Size of context area for input and update files

!+ Definitions for the RPGII file record control and sequence check blocks.
This area is allocated in PSECT \$LCCAL by the compiler
for each input and update file immediately following the record buffer.
!-

MACRO

RPGSA_RCB_RECID=	0,0,32,0 %.	Addr of record identifying indicator
RPGSA_RCB_EXTFLD=	4,0,32,0 %.	Addr of extract field routine
RPGSA_RCB_MATCH_RTN=	8,0,32,0 %.	Addr of match field compare and extract code
RPGSA_RCB_CFR=	12,0,32,0 %.	Addr of control field compare routine
RPG\$W_RCB_FLAGS=	16,0,16,0 %.	Record control block flag bits
RPG\$V_RCB_SEQ=	16,0,1,0 %.	TRUE if record type is seq checked
RPG\$V_RCB_MATCH=	16,1,1,0 %.	TRUE if record type has match fields
RPG\$V_RCB_CNTRLF=	16,2,1,0 %.	TRUE if record type has control fields
RPGSA_SCB_RCB=	0,0,32,0 %.	Address of the RCB of the record which is the current record in the sequence
RPG\$B_SCB_FLAGS=	4,0,8,0 %.	Sequence control block flag bits
RPG\$V_SCB_OPT=	4,0,1,0 %.	TRUE if record type is optional
RPG\$V_SCB_NO=	4,1,1,0 %.	TRUE if more than one of this record type may be present
RPG\$V_SCB_1SEEN=	4,2,1,0 %.	TRUE if one of the current record type has been seen
RPG\$V_SCB_LAST=	4,3,1,0 %.	TRUE if this is the end of the table and RPGSA_SCB_RCB contains the address of the 1st element in the SCB

LITERAL

RPG\$S_RCB=	18,	Size of record control block
RPG\$S_SCB=	5:	Size of sequence check block

!+ Definitions for RPG error handling.
The address of the program control block is found in RPG\$A_PCB
which is found offset from the frame pointer.
For version 1, the only field in the program control block
is the internal version number.
-

MACRO
RPG\$A_PCB= -4,0,32,0 %, ! Address of program control block
RPG\$B_PCB_ID= 0,0,8,0 %; ! Version number

!+ Definitions of first parameter to RPG\$IOEXCEPTION to describe where
to find IO error.
-

LITERAL
RPG\$K_ERR_RAB= 1; ! Condition value in RAB field
RPG\$K_ERR_FAB= 2; ! Condition value in FAB field
RPG\$K_ERR_FILE_CNTXT= 3; ! Condition value in file context area

!+ Definition of literal for error passed to RPG\$ERROR
!

LITERAL
RPG\$K_ERR_SUBSC= 5; ! Same as COBOL for now

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LIS

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RMSGBL
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RPGRTL

RPGDSPLY
LIS

RPGRTL
MAP

RPGPROLOG
REQ

RPGEXTIND
LIS

RPGLIB
LIS

RMS0RCH
LIS

RMS0WAIT
LIS

RPGBTZ
LIS

RPGMOVE2
LIS

RMS0UPDAT
LIS

RPGDEF
REQ

RPGDIVIDE
LIS

RPGIOEXCE
LIS

RPGERROR
LIS